

# PUBLIC MEETING TO DISCUSS IMPLEMENTATION OF NEAR-TERM TASK FORCE RECOMMENDATIONS 2.1 AND 2.3

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# Outline

- Scope and Assumptions
- Overall Approach
- Flooding Attachments
  - Process
  - Timeline
- Other External Hazard Attachment
  - Process
  - Timeline
- Seismic Attachments
  - Process
  - Timeline
- Next steps

# Scope and Assumptions

- The scope includes the following:
  - Plant: Level + Containment, full power operations
  - Ultimate heat sinks are included
  - Spent fuel pool (all modes of configurations).
  - ISFSIs are not included
- The scope will cover other natural external hazards per the 2012 Appropriations Act.
- GI-199 is subsumed.
- Potential GI-204 is subsumed, assuming approval as Generic Issue:
  - GI Program will track issue through routine reporting until all agency actions are completed
  - After Tier 3, reactivate GI-204 to address any unaddressed scope (e.g., Decommissioning sites)

# Overall Approach

- Six attachments to main letter being developed by PMs:
  - Three 2.1 attachments: seismic, flooding, other natural hazards
  - Two 2.3 attachments: seismic and flooding
  - One EP attachment: see presentation later today
- Purpose for Recommendation 2.1:
  - To gather information pursuant to NTTF Recommendation 2.1, as amended by Staff Requirements Memoranda (SRM) associated with SECY 11-0124 and SECY 11-0137, to reevaluate hazards at operating reactor sites
  - To collect the requested information to facilitate NRC's determination if there is a need for additional regulatory actions
  - To gather information to subsume GI-199 and potential GI-204
- Purpose for Recommendation 2.3:
  - To gather information pursuant to Near Term Task Force (NTTF) Recommendation 2.3, as amended by SRMs associated with SECY 11-0124 and SECY 11-0137
  - To develop a methodology and acceptance criteria for walkdowns to be endorsed by the staff following interaction with external stakeholders
  - To perform walkdowns using the endorsed walkdown methodology
  - To identify and address plant-specific vulnerabilities through the corrective action program
  - To verify the adequacy of monitoring and maintenance procedures

# Overall Approach (cont'd)

- Staged approach for 2.1:
  - Develop hazard information and submit intermediate report
  - Continue interactions on development of integrated assessment approaches and acceptance criteria while the hazard information is being developed (e.g., GI-199 SPRA/Margin approach extended to containment, flood mitigation measures, etc.)
  - Submit the final assessment report with identified vulnerabilities and actions taken or planned
- Staged approach for 2.3:
  - Licensee's will be requested to develop a methodology and acceptance criteria to perform walkdowns. They will then implement the walkdowns. It is expected that any performance deficiencies identified would be addressed by the site's corrective action program. The walkdowns will incorporate an integrated approach, including procedures, training, and staffing; along with the underlying strategy to address the hazard.
- Both approaches allow for incorporating any additional protection and mitigation measures that are taken or planned into the responses.

# 2.1 Flooding

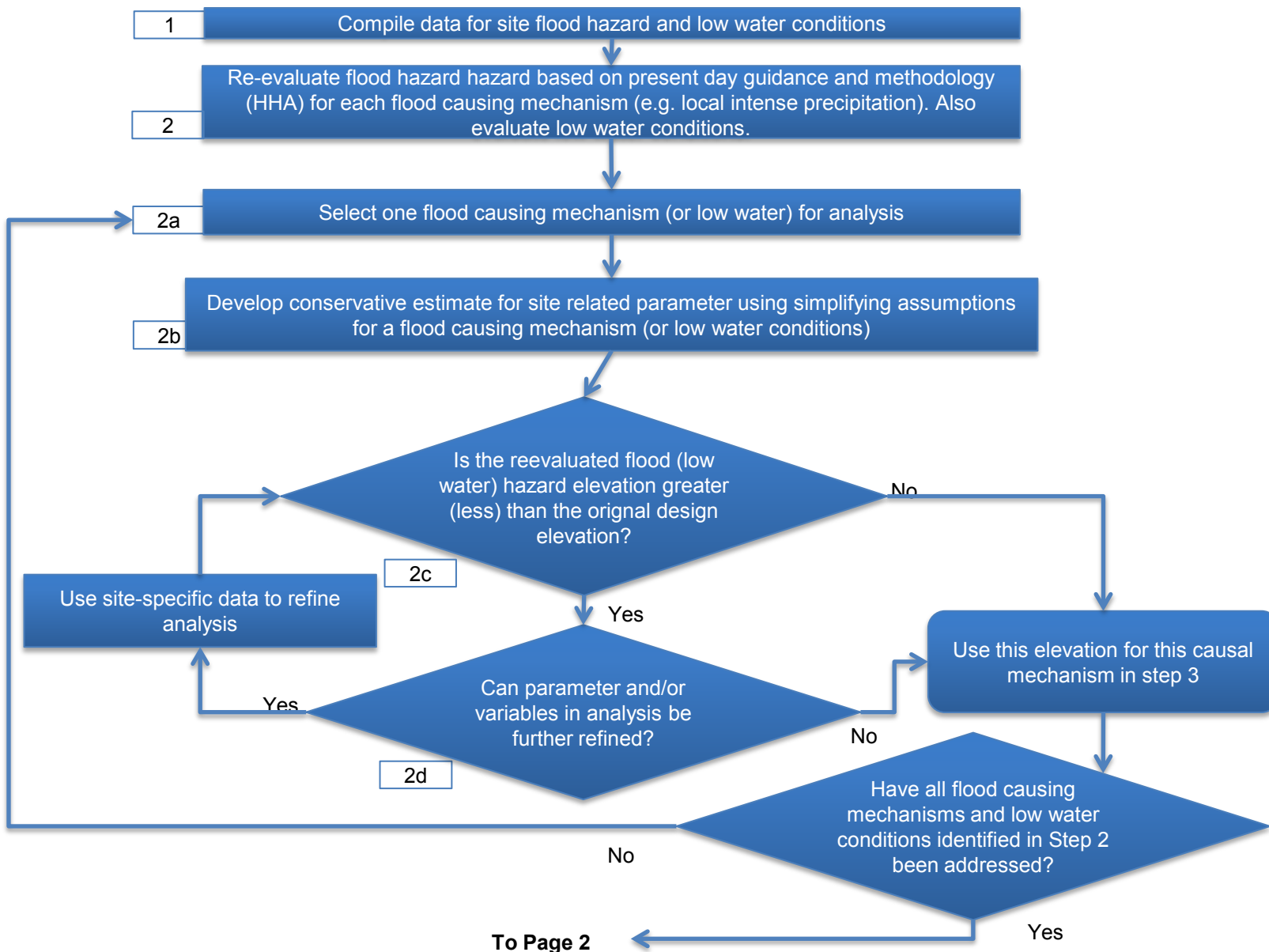


Figure 1. Development of Requested Information and Its Use in Regulatory Analysis. Page 1 of 2

# 2.1 Flooding (cont'd)

From Page 1

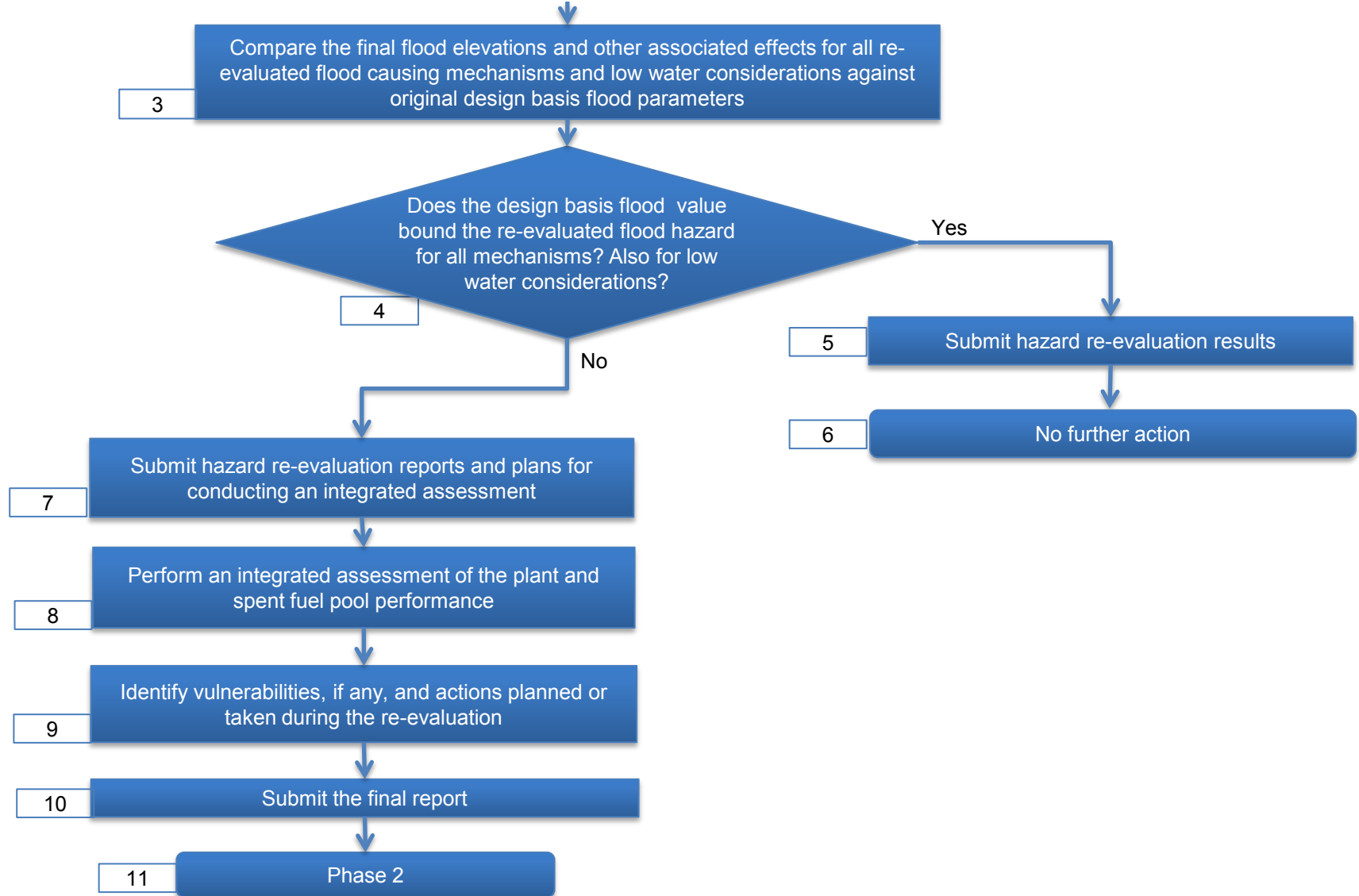


Figure 1. Development of Requested Information and Its Use in Regulatory Analysis. Page 2 of 2

# 2.1 Flooding Timeline

Proposed staff timeline:

- Within 180 days
  - complete interactions on developing process
- Within 1 year
  - submit hazard evaluation results
- Within 2 years
  - submit the final report



## 2.3 Flooding Timeline

Proposed staff timeline:

- Within 90 days
  - submit a process to conduct walkdown
- Within 180 days of the NRC endorsement of procedure
  - submit final report

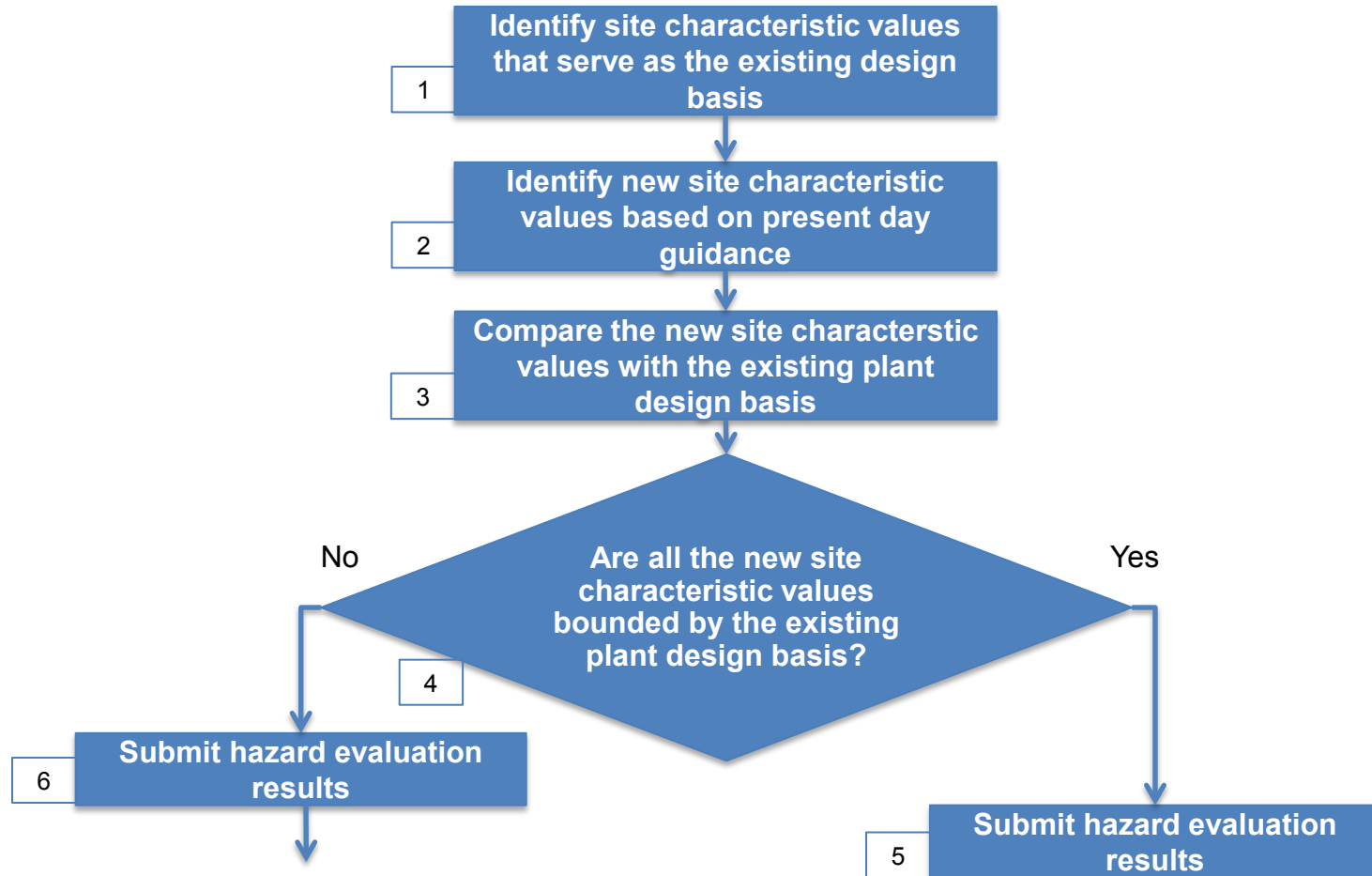
# List of Other Natural External Hazards

Phenomena	Present Day Design Basis Criteria
Design Basis Tornado <ul style="list-style-type: none"> <li>• 10,000,000-year wind speed</li> <li>• Maximum pressure drop</li> <li>• Rate of pressure drop</li> <li>• Missile spectra</li> </ul>	SRP 2.3.1, 3.3.2, and 3.5.1.4; RG 1.76 ( Rev. 1)
Design Basis Hurricane <ul style="list-style-type: none"> <li>• 10,000,000-year wind speed</li> <li>• Missile spectra</li> </ul>	SRP 3.3.2 and 3.5.1.4; RG 1.221
Severe (Operating Basis) Wind <ul style="list-style-type: none"> <li>• 100-year wind speed</li> </ul>	SRP 2.3.1 and 3.3.1
Precipitation (for Roof Design) <ul style="list-style-type: none"> <li>• Maximum rainfall rate</li> <li>• Maximum snow load</li> </ul>	SRP 2.3.1 and 2.4.2; DC/COL-ISG-7

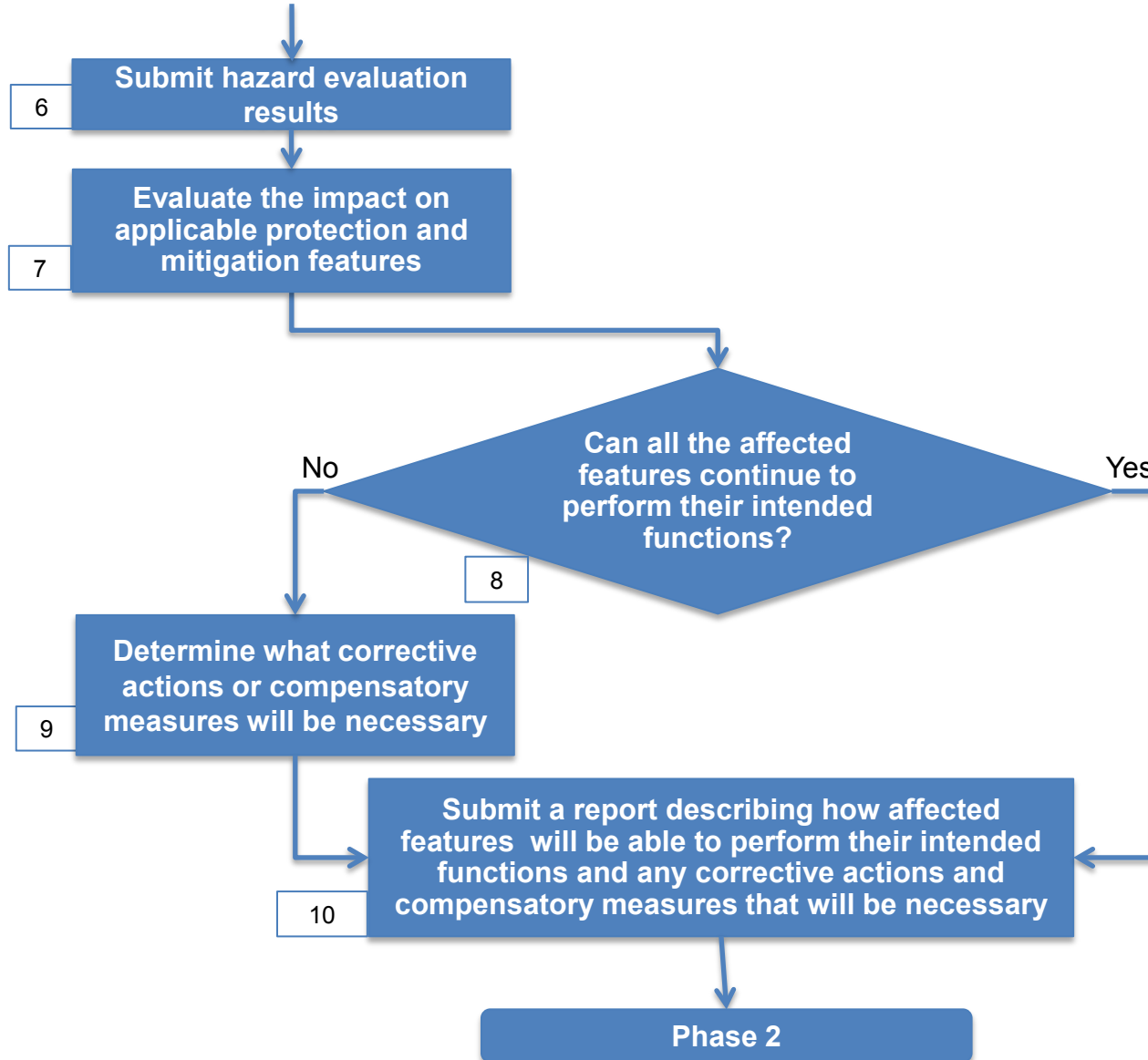
# List of Other Natural External Hazards

Phenomena	Present Day Design Basis Criteria
Ambient Design Temperatures <ul style="list-style-type: none"> <li>• Max dry bulb and coincident wet bulb</li> <li>• Min dry bulb</li> <li>• Max wet bulb</li> </ul>	SRP 2.3.1, 5.4.7, 6.2.1, 6.2.2, 6.4, 9.1.3, and 9.2.2
Ultimate Heat Sink Design Basis <ul style="list-style-type: none"> <li>• Minimum cooling</li> <li>• Maximum evaporation</li> <li>• Freezing in water storage</li> </ul>	SRP 2.3.1, 2.4.7, and 9.2.5; RG 1.27 (Rev. 2)
Other phenomena that have been deemed to be significant <ul style="list-style-type: none"> <li>• Thunderstorms, lightning, hail, sand and dust storms, water spouts, forest and grass fires, volcanic activity</li> </ul>	SRP 2.2.1-2.2.2, 2.2.3, and 2.3.1; RG 1.204

# Flow Chart of Requested Information



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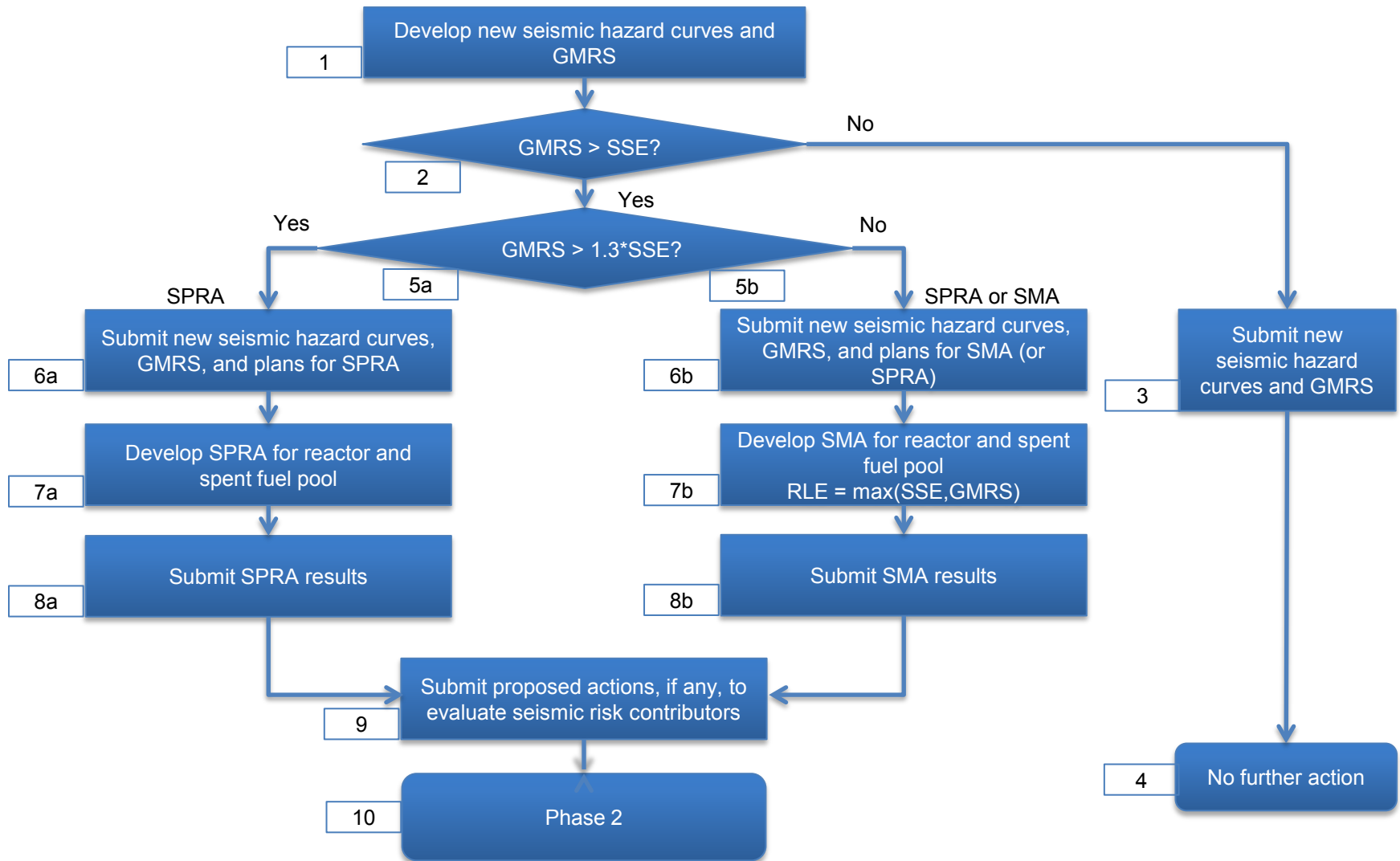


## 2.1 Other Natural External Hazards

Proposed staff timeline:

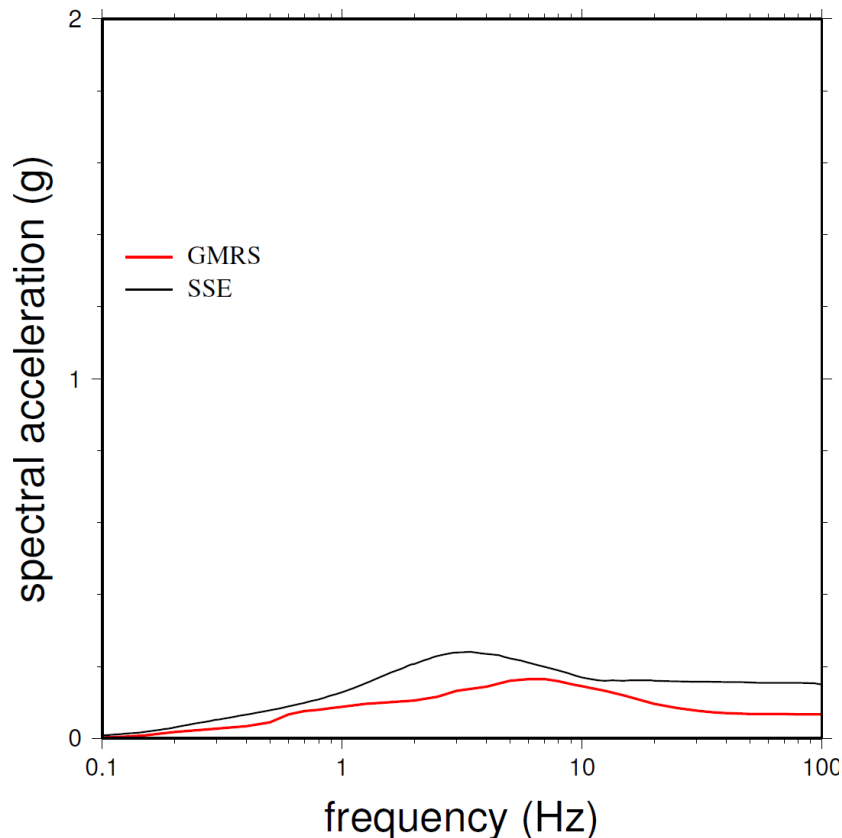
- Within 180 days
  - complete interactions on developing process
- Within 1 year
  - submit hazard evaluation results
- Within 2 years
  - submit the final report

# 2.1 Seismic

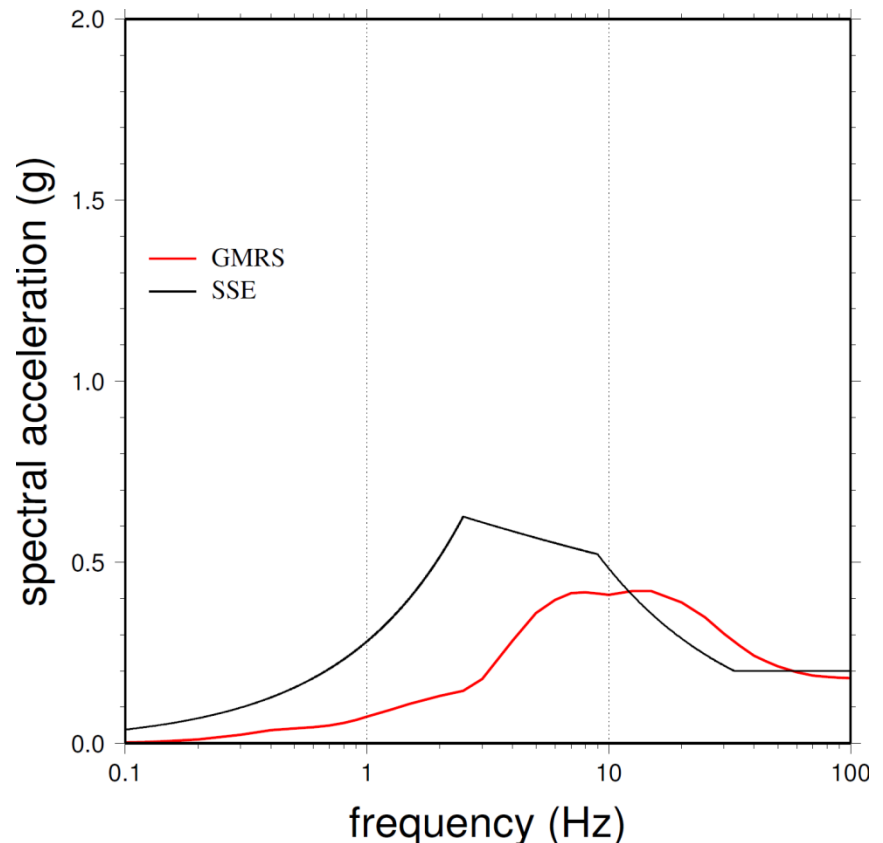


# 2.1 Seismic Screening

**No Further Action:**  $\text{GMRS} < \text{SSE}$



**No Further Action:**  $\text{GMRS} > \text{SSE}$   
only at frequencies above 10 Hz  
and  $\text{GMRS} < \text{SSE}$  at anchor pt.

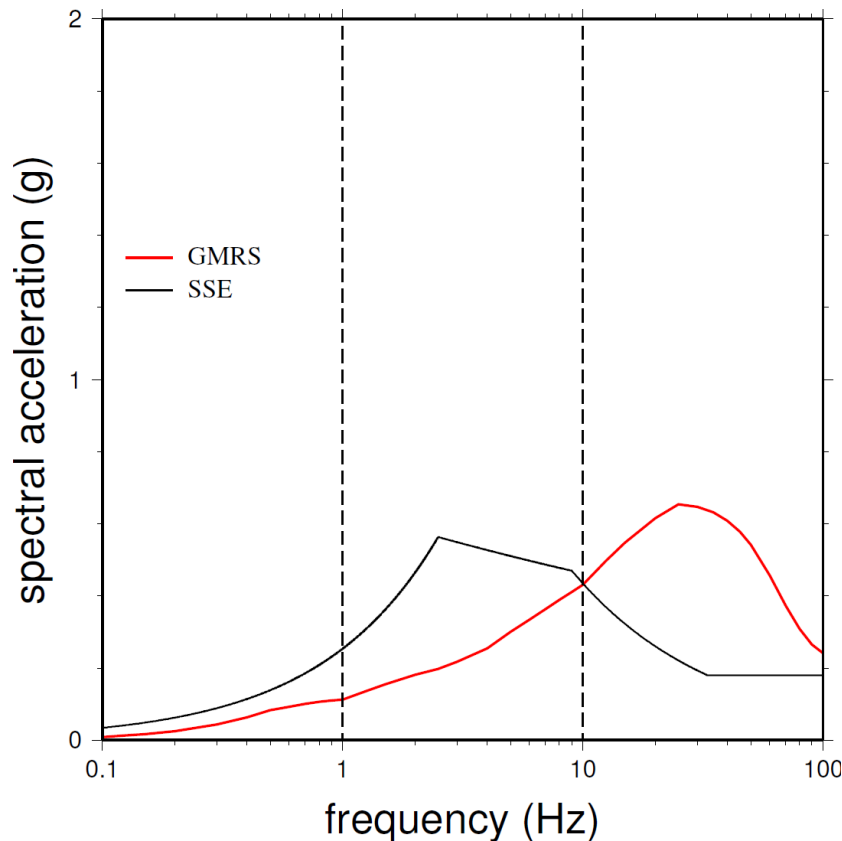




# 2.1 Seismic Screening (cont.)

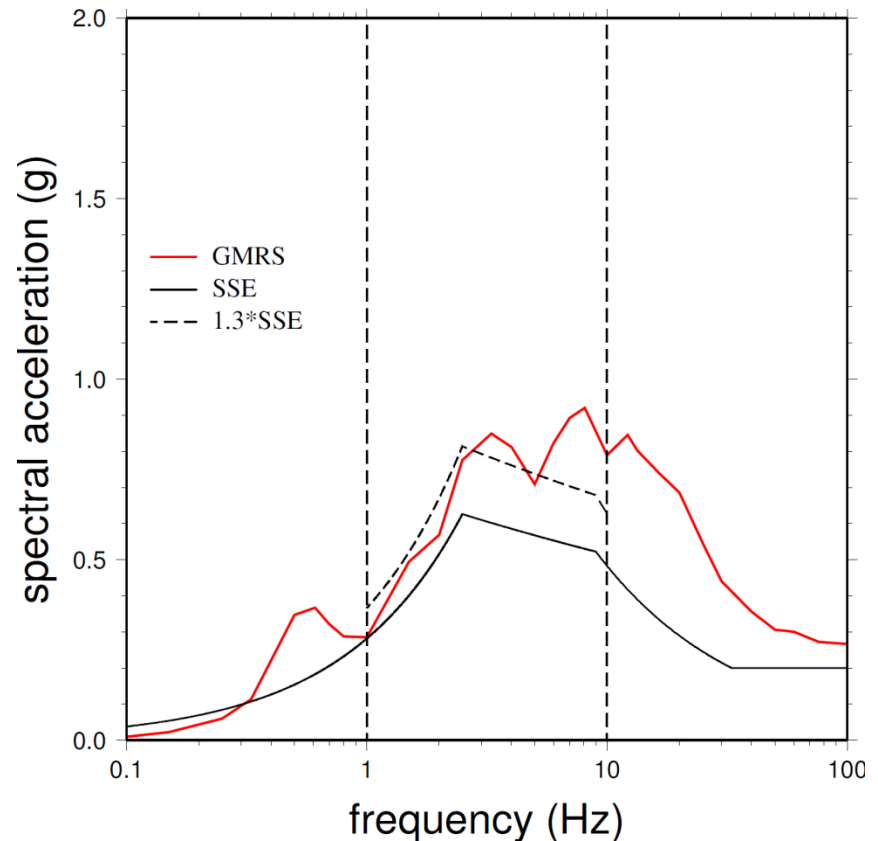
**Seismic Margin Analysis needed:**

GMRS > SSE above 10 Hz and  
at anchor pt.



**Seismic PRA needed:**

GMRS > 1.3\*SSE btwn 1 to 10 Hz



# 2.1 Seismic Timeline

## Proposed staff timeline:

- Within 180 days
  - complete interactions on implementation details of the risk assessment
- Within 1 year (more time for Western sites or sites that opt to acquire new geophysical/geotechnical data)
  - submit hazard evaluation results
- Within 30 days of completing the hazard evaluation
  - jointly determine the priority for the next submittal
- Within 3 years (time period according to the prioritization)
  - submit final risk results

## 2.3 Seismic Timeline

Proposed staff timeline:

- Within 90 days
  - submit a process to conduct walkdown
- Within 180 days of the NRC endorsement of procedure
  - submit final report

# Near-Term Steps

- By January 27<sup>th</sup> – Receive any written public comments regarding Tier 1 Recommendations at [JLD\\_Public.Resource@nrc.gov](mailto:JLD_Public.Resource@nrc.gov)
- On February 17<sup>th</sup> – Provide Commission with a notation vote paper on issuance of Orders and 50.54(f) letters.
- By March 9<sup>th</sup> – Issue Orders and 50.54(f) letters, with Commission approval
- Continue interactions with the external stakeholders on implementation methodology, walkdown processes, etc.
- Develop the staff positions, guidance, and endorsements, as necessary